Claims

1-26 Canceled

27. (New) A device for monitoring the position and movement of a brake pedal, the device comprising:

a master cylinder (1; 102) with an integrated position generator for monitoring the position of a displaceable piston (2, 3; 105, 106) within a housing, the position generator includes a magnet (35; 150) as a signal transmitter which transmits a magnetic field in the direction of a sensor element (36; 151) being stationary on the housing (6, 103), and is connectable to an electronic control unit; wherein the magnet (35; 150) is arranged between two pistons (2, 3; 105, 106) and is displaceable in relation to at least one of the pistons (2, 3; 105, 106).

28. (New) The device according to claim 27 wherein, at least two spring members are provided, by way of which the magnet (35; 150) is retained between the pistons (2, 3; 105, 106) and is arranged so as to be displaceable in relation to at least one of the pistons (2, 3; 105, 106).

29. (New) The device according to claim 28, wherein the spring members comprise a resetting spring (14; 133) supported on the first piston (2; 105) and an additional spring member (42; 157; 166; 189) supported on the magnet (35; 150), with the additional spring member (42; 157; 166; 189) showing a higher degree of resiliency than the resetting spring (14; 133).

30. (New) The device according to claim 29, wherein the sensor element (36; 151) comprises at least one Hall sensor.

31. (New) The device according to claim 30, wherein the piston (3; 106) includes a device for guiding the magnet (35; 150).

32. (New) The device according to claim 31, wherein the piston (3; 106) has a peg-

shaped piston portion (34; 147) to guide the magnet (35; 150).

33. (New) The device according to claim 32, wherein a support member (39; 50; 154; 165) made of a non-magnetic material is arranged between the magnet (35; 150) and the piston portion (34; 147), and in that the magnet (35; 150) is interposed in an axial direction between plates (37, 38; 152, 153) made of an iron material.

34. (New) The device according to claim 33, wherein the support member (39; 50; 154; 165) has a one-part and substantially cylindrical design.

35. (New) The device according to claim 34, wherein the support member (39; 154) has a bead (40; 155) for the axial abutment of the magnet (35; 150), and a stop (41; 156) is provided at the piston portion (34, 147) for limiting the relative displacement travel of the support member (39; 154) with respect to the piston (3; 106), with the additional spring member (42; 157) being supported on the piston (3; 106).

36. (New) The device according to claim 35, wherein a resetting spring (14) is arranged at least partly within a bowl-shaped wall (24) of the piston (2) and is centrally penetrated by a peg (26) with a stop (30) on which a sleeve (22) is fixed in position in such a fashion that, upon displacement of the piston (2) during actuation, the device for guiding the magnet (35) plunges axially and telescopically into the interior of the sleeve (22).

37. (New) The device according to claim 34, wherein the support member (165) includes a first cylindrical portion (167) and a second cylindrical portion (168), and the magnet (150) is arranged on the second cylindrical portion (168) of the support member (165), while the support member (165) with its second cylindrical portion (168) is guided on the piston portion (147) of the second piston (106).

38. (New) The device according to claim 37, wherein the support member (165) has projections (169) which point radially inwards and, as a guide and rotation-prevention mechanism of the support member (165), engage into recesses (170) of

the second piston portion (147).

39. (New) The device according to claim 33, wherein the support member (165) has a multi-part design and includes a spring sleeve (177) and a magnet sleeve (178), and the spring sleeve (177) includes radially outwards pointing projections (181) being arranged between radially inwards pointing projections (184, 185) of the magnet sleeve (178) for the connection with the magnet sleeve (178), with said projections (181, 184, 185), as a guide and a rotation-prevention mechanism of the support member (165) on the piston portion (147), engaging into recesses (170) of the second piston portion (147), and with the magnet (150) being arranged on the magnet sleeve (178).

40. (New) The device according to claim 39, wherein the the resetting spring (14; 133) and the additional spring member (42; 166; 189) are joined in an elastically biased manner by means of a cage (51; 145) in such a fashion that displacement of the piston (2; 105) during actuation allows compression of the resetting spring (14; 133) and expansion of the additional spring member (42; 166; 189) in order to render possible a proportional relative displacement of the magnet (35; 150) in relation to the piston (2; 105).

41. (New) The device according to claim 40, wherein the cage (51) includes a sleeve for the mounting support of the magnet (35) and a spring accommodation (52) which is arranged thereon so as to be displaceable within limits and is acted upon by resetting spring (14) and spring member (42), which spring accommodation, when the piston (2) is displaced during actuation, is movable into abutment on the piston (3) in such a fashion that sleeve and magnet (35) are displaced in the actuating direction (A) in relation to the piston (3) by way of expansion of the spring member (42).

42. (New) The device according to claim 40, wherein the cage (145) has a first sleeve (137) and a second sleeve (164; 187) for preloading the resetting spring (133) and

a support member (165; 188), wherein upon displacement of the piston (105) during actuation the magnet (150) is displaced in relation to the piston (106) in the actuating direction (A) by way of expansion of the additional spring member (166; 189).

43. (New) The device according to claim 42, wherein the magnet (150) is guided and arranged on the second sleeve (187), and the support member (188) has projections (196) pointing radially outwards and being guided in recesses (193) of the second sleeve (187).

44. (New) The device according to claim 43, wherein the magnet (150) is interposed in an axial direction between plates (152, 153) made of an iron material which include radially inwards pointing projections (197) and webs (198) that are guided in the recesses (193) of the second sleeve (187).

45. (New) The device according to claim 44, wherein the second sleeve (187) has a step (200) on an inside surface (199), and the additional spring member (189) is arranged between the step (200) and the plate (153) in a biased manner.

46. (New) The device according to claim 45, wherein an additional spring member is interposed in a biased manner between the first sleeve and the support member.

47. (New) The device according to claim 27, wherein the sensor element (36; 151) is arranged in an accommodation (60) that can be fixed in a defined position on the housing (6; 103).

48. (New) The device according to claim 47, wherein the sensor element (36; 151) along with rigid conductor elements is received in the accommodation (60) in a form-locking manner, and in that an electric connecting line (61) can be slipped into a plug device (62) of the accommodation (60).

49. (New) The device according to claim 48, wherein the accommodation (60) is

adjustable in the actuating direction (A) of the piston (2, 3; 105, 106) and in relation to the housing (6; 103) and can be fixed in a defined position.

50. (New) The device according to claim 49, wherein the housing (6; 103) has a stop (63) for the accommodation (60), and in that at least one spacer element (64) is arranged between stop (63) and accommodation (60) for providing a defined positioning of the sensor element (36).

51. (New) The device according to claim 49, wherein the accommodation (60) is arranged between two pressure fluid reservoir ports (65, 66).

52. (New) The device as claimed in claim 49, wherein the accommodation (60) is arranged at a housing end.